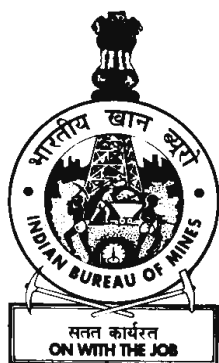


STATE REVIEWS



Indian Minerals Yearbook 2012

(Part- I)

51st Edition

**STATE REVIEWS
(Karnataka)**

(FINAL RELEASE)

**GOVERNMENT OF INDIA
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KARNATAKA

Mineral Resources

Karnataka has the distinction of being the principal gold producing State in the country. The State is the sole producer of felsite and leading producer of iron ore, chromite and dunite. Karnataka hosts the country's 78% vanadium ore, 73% iron ore (magnetite), 42% tungsten ore, 37% asbestos, 28% limestone, 22% gold, 20% granite, 17% dunite, and 14% corundum resources.

The important mineral-occurrence found in the State are **bauxite** in Belgaum, Chickmagalur, Uttara & Dakshina Kannada and Udupi districts; **china clay** in Bengaluru, Belgaum, Bellary, Bidar, Chickmagalur, Dharwad, Gadag, Hassan, Haveri, Kolar, Uttara & Dakshina Kannada, Shimoga and Tumkur districts; **chromite** in Chickmagalur, Hassan and Mysore districts; **dolomite** in Bagalkot, Belgaum, Bijapur, Chitradurga, Mysore, Uttara Kannada and Tumkur districts; **dunite/pyroxenite** in Chickmagalur, Hassan and Mysore districts; **felspar** in Bengaluru, Belgaum, Chitradurga and Hassan districts; **fireclay** in Bengaluru, Chitradurga, Dharwad, Hassan, Kolar, Shimoga and Tumkur districts; **gold** in Chitradurga, Dharwad, Gadag, Gulbarga, Hassan, Haveri, Kolar, Raichur and Tumkur districts; **iron ore (hematite)** in Bagalkot, Bellary, Bijapur, Chickmagalur, Chitradurga, Dharwad, Gadag, Uttara Kannada, Shimoga and Tumkur districts; **iron ore (magnetite)** in Chickmagalur, Hassan, Uttara & Dakshina Kannada and Shimoga districts; **kyanite** in Chickmagalur, Chitradurga, Coorg, Mandya, Mysore, Shimoga and Dakshina Kannada districts; **limestone** in Bagalkot, Belgaum, Bellary, Bijapur, Chickmagalur, Chitradurga, Davangere, Gadag, Gulbarga, Hassan, Mysore, Uttara & Dakshina Kannada, Shimoga, Tumkur and Udupi districts; **magnesite** in Coorg, Mandya and Mysore districts; **manganese ore** in Belgaum, Bellary,

Chickmagalur, Chitradurga, Davangere, Uttara Kannada, Shimoga and Tumkur districts; **ochre** in Bellary and Bidar districts; **quartz/silica sand** in Bagalkot, Bengaluru, Belgaum, Bellary, Chickmagalur, Chitradurga, Davangere, Dharwad, Gadag, Gulbarga, Hassan, Haveri, Kolar, Koppal, Mandya, Mysore, Uttara & Dakshina Kannada, Raichur, Shimoga, Tumkur and Udupi districts; **Quartzite** in Belgaum district; and **talc/steatite/soapstone** in Bellary, Chickmagalur, Chitradurga, Hassan, Mandya, Mysore, Raichur and Tumkur districts.

Other minerals that occur in the State are **asbestos** in Chickmagalur, Hassan, Mandya, Mysore and Shimoga districts; **barytes** and **pyrite** in Chitradurga district; **calcite** in Belgaum, Bijapur and Mysore districts; **copper** in Chickmagalur, Chitradurga, Gulbarga, Hassan, Uttara Kannada, Raichur and Shimoga districts; **corundum** in Bengaluru, Bellary, Chitradurga, Coorg, Hassan, Mandya, Mysore and Tumkur districts; **fuller's earth** in Belgaum and Gulbarga districts; **granite** in Bagalkot, Bengaluru, Bellary, Bijapur, Chamrajanagar, Chickmagalur, Chitradurga, Coorg, Dharwar, Gadag, Gulbarga, Hassan, Kolar, Koppal, Mandya, Mysore, Uttara & Dakshina Kannada, Raichur, Tumkur and Udupi districts; **graphite** in Kolar and Mysore districts; **gypsum** in Gulbarga district; **molybdenum** in Kolar and Raichur districts; **nickel** in Uttara Kannada district; **sillimanite** in Hassan, Mysore and Dakshina Kannada districts; **silver** in Chitradurga and Raichur districts; **titanium minerals** in Hassan, Uttara Kannada and Shimoga districts; **tungsten** in Gadag, Kolar and Raichur districts; **vanadium** in Hassan, Uttara Kannada and Shimoga districts; and **vermiculite** in Hassan, Mandya and Mysore districts (Table - 1).

Exploration & Development

The details of exploration activities conducted by various agencies during 2011-12 are furnished in Table - 2.

Table – 1 : Reserves/Resources of Minerals as on 1.4.2005 : Karnataka

Mineral	Unit	Reserves										Total resources (A+B)						
		Proved		Probable		Total (A)		Feasibility		Pre-feasibility			Remaining resources					
		STD 111	STD 112	STD 121	STD 122	STD 211	STD 212	STD 221	STD 222	Measured STD 331	Indicated STD 332		Inferred STD 333	Reconnaissance STD 334	Total (B)			
Asbestos	tonne	-	-	-	-	-	-	-	-	-	-	-	2441037	5841420	-	-	8282457	8282457
Barytes	tonne	-	-	-	-	-	-	-	-	-	-	-	-	15175	-	-	15175	15175
Bauxite	000 tonnes	5399	542	5941	1735	394	10	2220	45405	-	49764	55705	-	-	-	-	49764	55705
Calcite	tonne	-	-	-	-	-	64	14400	51865	-	66329	66329	-	-	-	-	66329	66329
China clay	000 tonnes	943	835	280	2058	819	738	3390	24685	6030	256466	258524	443	24685	-	-	256466	258524
Chromite	000 tonnes	333	395	17	745	250	218	96	303	-	887	1632	20	303	-	-	887	1632
Copper																		
Ore	000 tonnes	836	1301	373	2510	-	-	2008	1750	6833	20434	33535	6833	20434	-	-	31025	33535
Metal	000 tonnes	8.78	17.56	4.31	30.65	-	-	11.24	22.00	65.77	99.61	229.27	65.77	99.61	-	-	198.62	229.27
Corundum	tonne	-	-	-	-	-	756	105885	13	38	14169	646860	38	14169	526000	-	646860	646860
Dolomite	000 tonnes	86077	31399	10889	128365	18585	7826	15391	8519	17578	465852	662116	17578	465852	-	-	533751	662116
Dumite	000 tonnes	3718	-	223	3940	-	-	-	23909	-	4149	31998	-	4149	-	-	28058	31998
Felspar	tonne	119525	69575	107055	296155	-	-	-	25000	135133	177300	637488	135133	177300	3900	341333	637488	637488
Fireclay	000 tonnes	95	324	85	503	792	595	6871	-	226	5250	14238	226	5250	-	-	13734	14238
Fuller's earth	tonne	-	-	58200	58200	-	-	-	-	551640	1471276	2081116	551640	1471276	-	-	2022916	2081116
Gold																		
Ore	(primary) tonne	16007614	7215335	863529	24086478	1168000	790000	215132	24979968	8204595	12003638	108802811	8204595	12003638	37355000	84716333	108802811	108802811
Metal																		
(primary)	tonne	70.89	31.77	7.75	110.41	3.09	2.49	0.78	120.7	28.67	27.2	337.00	28.67	27.2	43.66	226.59	337.00	337.00
Granite																		
(Dim. stone)	000 cu m	26363	19389	21836	67588	-	-	-	238	1231625	8012784	9337894	1231625	8012784	25659	9270306	9337894	9337894
Graphite	tonne	727	20820	1312	22859	7500	18750	-	-	18200	-	67309	-	-	-	44450	67309	67309
Gypsum	000 tonnes	-	-	-	-	-	-	-	-	-	3784	3784	-	3784	-	-	3784	3784
Iron ore																		
(Hematite)	000 tonnes	602685	95458	178723	876866	73194	171202	59231	245454	42843	501669	2158678	42843	501669	188218	1281811	2158678	2158678

(Contd.)

Table-1 (Contd.)

Mineral	Unit	Reserves				Remaining resources				Total resources (A+B)				
		Proved STD 111	Probable		Total (A)	Feasibility STD211	Pre-feasibility		Measured STD331		Indicated STD332	Inferred STD333	Reconnaissance STD334	Total (B)
			STD121	STD122			STD221	STD222						
STATE REVIEWS														
Iron ore														
(Magnetite)	000 tonnes	-	-	-	120022	-	18375	1498957	479372	5345018	340000	7801744	7801744	
Kyanite	tonne	-	-	-	309525	21600	18843	386247	1610502	10688721	-s	13035438	13035438	
Limestone	000 tonnes	538927	486300	72518	1097745	171995	453541	1573788	13919929	34579866	8240	51102029	52199775	
Magnesite	000 tonnes	332	202	163	697	18	499	88	10	2734	-	3349	4046	
Manganese ore	000 tonnes	11455	1827	2821	16103	6056	7523	2227	7385	52893	270	80085	96188	
Molybdenum														
Ore	tonne	-	-	-	-	-	-	-	-	1320900	-	1320900	1320900	
Contained														
MoS ₂	tonne	-	-	-	-	-	-	-	-	1719	-	1719	1719	
Nickel ore	Million tonnes	-	-	-	-	-	-	-	-	0.23	-	0.23	0.23	
Ochre	tonnes	-	-	-	-	-	1766367	-	-	-	20000	1786367	1786367	
Platinum group														
of metals	tonne	-	-	-	-	-	-	-	-	-	1.50	1.50	1.50	
Pyrites	000 tonnes	-	-	-	-	-	-	-	-	3000	-	3000	3000	
Quartzite	000 tonnes	390	-	1011	1401	-	190	-	-	-	1730	1920	3321	
Quartz-														
silica sand	000 tonnes	8677	3809	2375	14861	12402	4970	8276	100	49508	525	75987	90848	
Sillimanite	tonne	-	-	-	-	-	-	-	-	982725	-	982725	982725	
Silver														
Ore	tonne	8681065	-	-	8681065	-	69462	-	-	314150	-	383612	9064677	
Metal	tonne	2.67	-	-	2.67	-	0.48	-	-	2.92	-	3.40	6.07	
Talc-steatite-														
soapstone	000 tonnes	35	-	182	217	49	124	217	208	1242	-	1851	2068	

(Contd.)

Table-1 (Concl.)

Mineral	Unit	Reserves			Feasibility STD211	Pre-feasibility		Remaining resources				Total resources (A+B)	
		Proved STD 111	Probable STD121	STD122		Total (A)	STD221	STD222	Measured STD331	Indicated STD332	Inferred STD333		Reconnaissance STD334
STATE REVIEWS													
Titanium													
minerals*	tonne	-	-	-	-	-	-	-	-	13862094	-	13862094	13862094
Tungsten													
Ore	tonne	-	-	-	-	-	-	15361152	11805499	172921	9338246	36677818	36677818
Contained													
WO ₃	tonne	-	-	-	-	-	-	2915	1775	142	1403	6235	6235
Vanadium													
Ore	tonne	-	-	-	-	500000	4000000	-	-	14884430	-	19384430	19384430
Metal	tonne	-	-	-	-	700	5600	-	-	43197.55	-	49497.55	49497.55
Vermiculite	tonne	-	-	-	-	69050	64500	-	1562	66658	-	201770	201770

Figures rounded off.

* Resources as per Department of Atomic Energy are provided in the respective Mineral Reviews.

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Table – 2 : Details of Exploration Activities in Karnataka, 2011-12

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks Reserves/Resources estimated
		Scale	Area	No. of	Metreage		
GSI Diamond Raichur	Parets of Raichur	-	-	-	-	-	Reconnaissance stage investigation (G-4) was taken up to locate kimberlites in the area based on the previous finds of kimberlites (Raichur Kimberlite Field). The area is a part of the Archean granite-greenstone terrain of the Eastern Dharwar Craton (EDC) exposing the metavolcanic and associated metasedimentary rocks of the Eastern Greenstone belts (Kushtagi, Hutti and Deodurg-Raichur schist belts), Migmatitic gneisses of Peninsular Gneiss- II, syenite, pink/grey granite and porphyritic and homophanous granite and granodiorite. All these rock types have been traversed by quartz veins, gabbro and dolerite dykes. This Archean terrain is covered in the northern part by flood basalts of Deccan Trap. Geochemical anomaly brought out near Paidoddi is due to the presence of meta-ultramafic enclave in the area. Calcrete development was observed at 1 km west of Govindoddi in the vicinity of a very small exposure of ultramafic body. Dolerite and gabbro dykes have been traced. Suspected Cr-Diopside grains collected from stream sediment samples are submitted for EPMA analysis. The work has been completed.
Gold Tumkur	Ajjanahalli Block-D	-	-	-	-	-	Prospecting stage investigation (G-3) for gold was taken up in the Ajjanahalli sector of Chitradurga schist, where earlier investigation identified mineralisation in BIF and adjacent country rocks. The boreholes were drilled to intersect the mineralised BIF bands to study the subsurface nature, behaviour, depth persistence and gold content of the auriferous Banded Iron Formations.

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STATE REVIEWS

Table - 2 (Contd.)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks Reserves/Resources estimated
		Scale	Area	No. of	Metreage		
GSI Gold Tumkur	Ajjanahalli block-D	-	-	-	-	-	The borehole BH-20 intersected mineralised zone VII and VIII in BIF which is highly sheared, with quartz-carbonate veins/veinlets, having plenty of sulphides such as pyrite, pyrrhotite and arsenopyrite and minor chalcopyrite. Borehole BH-21, 22 & 23 intersected mineralised zone III and IV in BIF. The BIF is highly sheared, with quartz-carbonate veins/veinlets, having sulphides such as pyrite, pyrrhotite and arsenopyrite. Correlation of mineralised zones intersected in different boreholes is in progress.
-do- Tumkur	Ajjanahalli block-E	-	-	-	-	-	Reconnaissance stage investigation helped in delineating a mineralised zone for a strike length of 900 m within BIF band. The main lithounits in block E are metabasalt, argillite, BIF and various generations of quartz vein and two later basic intrusives. A major old working is noticed at the western limb of the band. The old working is confined to the BIF band extending for a length of 25 m along the strike direction with a width of 4 m. The BIF band is sheared, brecciated and limonitised. The wall rock alteration of metabasalt is observed at the contact of BIF. The BIF is sheared, highly limonitised with quartz veins/veinlets, Several quartz veins are noticed in metabasalt. The work has been completed.
-do- Tumkur	Ajjanahalli block-G	-	-	-	-	-	Reconnaissance stage (G-4) investigation was carried out for assessment of gold mineralisation. The major litho-units noticed in the area are meta-basalt, BIF and argillite. Various generations of quartz vein are cross cutting the BIF as well as meta-basalt. Thin, impersistent Ferro-dolomite bands (50 cm) are mapped

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Table - 2 (Contd.)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks Reserves/Resources estimated
		Scale	Area	No. of	Metreage		
GSI Gold Tumkur	Ajjanahalli block-G	-	-	-	-	-	at the contact of meta-basalt and BIF band at places. An old working is noticed at one of the BIF band. The wall rock alteration is observed at the contact of BIF with both lithounits. The BIF is sheared, highly limonitised with quartz veins/veinlets. Three new BIF bands were established named as band VIII, IX and X in the western part of the area. The work has been completed.
-do- Chitradurga & Tumkur	Adivala Obalapura, Mavinamadu block	-	-	-	-	-	Reconnaissance stage investigation (G-4) was taken up, to assess the auriferous nature and to locate possible gold mineralisation in the eastern shear of the Chitradurga Schist belt. These blocks are situated 500 m to 1 km south east of Hiriyur to south of Mavinamadu, comprising the Hiriyur Fonnation belonging to Chitradurga Group of Dharwar Supergroup. The present area of investigation is a part of the Ajjanahalli folded BIF band sequence and falls within the minor shear very close to the eastern shear in the eastern margin of the central part of the Chitradurga schist belt. The main rock types are massive, schistose, pyroclastic vesicular and carbonate metabasalt BIF (5-7 BIF bands) and metagreywacke, argillite, with younger basic and acid intrusive. Based on the chemical analytical results of bedrock and trench samples and surface indications delineation of mineralised zones in the area was in progress. The work has been completed.

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Table - 2 (Contd.)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks Reserves/Resources estimated
		Scale	Area	No. of	Metreage		
GSI Gold Shimoga	Bharapura & Hosahalli	-	-	-	-	-	Reconnaissance stage investigation (G-4) for gold mineralisation has been carried out during FS 2010-12. The Shimoga schist belt is one of the important schist belts in Western Dharwar Craton where earlier investigation in southern part of the Shimoga schist belt led to identification of prospects in Jalagaragundi, Siddarahalli, Honnahatti and Singanamane areas. The major rock types noticed during the large scale mapping are PGC, metabasalt, fuchsite quartzite, quartz-chlorite schist, talc-chlorite schist, quartzite, polymictic conglomerate and basic dykes. Evidences of mineralisation are in the form of silicification, sulphide leaching and dissemination of sulphides within quartz-chlorite schist and talc-chlorite schist in the form of pyrite, pyrrhotite and arsenopyrite. The shear zone in south west of Bhairapura was traced further north. The investigation has been completed.
GSI Iron ore Chitradurga	Kenkeri, Melanahalli, Guruvapura, Kempanahalli Dasudi, Kandikere blocks.	-	-	-	-	-	Reconnaissance stage investigation (G-4) was initiated during FS 2010-12 in selected freehold areas for preliminary assessment of the iron ore occurrences in parts of Chitradurga schist belt as a follow up of decisions taken in State Geological Programming Board of Karnataka and Central Geological Programming Board meetings. Large scale mapping in Melanahalli and Guruvapura blocks has brought out three bands of BIF. The analytical results of trench samples (value of 55.01% Fe) obtained near a fold closure indicated a structural control for the ore mineralisation. Bed rock samples have analysed values ranging from 20.11 to 46.91 wt % Fe. The width of BIF band at Purada Mata hill range from 10 to 15 m and at south of dolomitic stone hill is 35 m. In Kandikere block a 15 to 20 m wide band of BHQ has been delineated. The work has been completed.

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Table - 2 (Contd.)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks Reserves/Resources estimated
		Scale	Area	No. of	Metreage		
GSI Limestone Bagalkot	Jalikatti, Lokapur and adjoining areas	-	-	-	-	-	Reconnaissance (G-4) stage investigation has been taken to assess for SMS grade limestone for alkali content. The limestone members of Yendigiri and Muddapur Formations are the main bands mined in the area. The width of the limestone unit of Yendigiri Formation (Chikshellikere member) varies from 100-400 m and could be more. The limestone unit of Muddapur Formation (Pettur member) is 15 to 80 m wide. Evidences of stromatolites have been noted in Petlur limestone near Venkatapur, Nagnapur (Jalikatti) of Muddapur Formation and Chitrabanukot dolomite (Varchagal) of Yargatti Formation. Five zones of stromatolites were noted in Chitrabanukot dolomite, near Varchagal. Preliminary assessment indicates that the dark grey limestone belonging to Yendigere Formation tentatively conforms to the specifications of flux and SMS grade limestone. It is fine grained and massive unit of considerable width. However the chemical analysis has to be obtained for confirmation. The lower part of the two limestone units (Yendigere and Muddapur) are variegated and may not be suitable as flux and SMS grade. It has high SiO ₂ and grades to shaly limestone. The work is under progress to categorize the limestone based on chemical analysis results. The work has been completed.
GSI PGE	Nuggihalli	-	-	-	-	-	Reconnaissance (G-4) stage investigation for PGE has been taken up during FS 2010-12. The area comprises granitic gneiss, amphibolite and meta ultramafites "C mafites. Major ultramafics observed are serpentinite, meta pyroxenite, meta gabbro, anorthositic gabbro gabbroic anorthosite and meta anorthosite. The serpentinites might be the altered product of dunite and peridotites. In the mine pits for chromite the igneous layerings are well manifested at various places like Tagadur, Ranganatha Betta and Bakhtarhalli. Chromites are seen in various forms like veins, lenses, pods,

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Table - 2 (Contd.)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks Reserves/Resources estimated
		Scale	Area	No. of	Metreage		
							laminated and also as disseminated Chromitite layers are recorded within massive serpentinite in Tagadur mines. The massive chromitites are under intense mining by Mysore Mineral Limited of Karnataka. Titaniferous-vanadiferous magnetite (TVM) bands are noticed within the mafic portions of the layerings and are abundantly seen near Tagadur and Ranganatha Gudda. Sulphide mineralisation is observed only on the titano-magnetite bands and amphibolites. In the TVM bands sulphide is seen in the form of bluish, brownish, greenish and yellowish stains. In amphibolites fine disseminations of pyrite is seen rarely. Stringers of chalcopyrite are also seen near Ranganatha Gudda. The work has been completed.
DMG Limestone Gulbarga	Jewargi	1:2,500	-	03	372.0	-	The object of exploration is to assess the depth continuity and quality of limestone and are well exposed oriental beds with tight bedding planes. Limestones are generally massive, grey to light grey in colour. Resources were not estimated.
-do- Tumkur	Melanahally	-	-	01	65.50	-	The object of exploration is to assess the depth continuity and quality of limestone. Limestone and dolomite are highly distributed zone with dykes intrusions. The general trend is NNW - SSE with dip either side angles arranging 60° vertical. Resources were not estimated.
Ornamental Stone Chikkaballapur	Bagepalli	1:50,000	75.0	-	-	-	The object of exploration is to assess the rocks suitable for ornamental purpose. Geologically the area consists of Granite gneiss, granite, amphibolites, hornblend schists and dolerite dykes. Gneisses forms a rolling topography and exposed in the form of isolated boulders and sheet rocks. Enclaves of amphibolites and hornblend schists are common as caught of patches within in gneisses and granites. The important villages where ornamental variety of rocks located around North of Honara-impalli, Poklamakallapalli, Kottur and Sadapalli. Further work is under progress.

(Contd.)

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Table - 2 (Concl.)

Agency/ Mineral/ District	Location	Mapping		Drilling		Sampling	Remarks Reserves/Resources estimated
		Scale	Area	No. of	Metreage		
Hutti Gold Mine Gold Raichur	Vill : Hutti	1:400	2831 (UG)	-	7449	9883	A total of about 15.36 million tonnes gold resources were estimated. Out of which 9.51 million tonnes resources of gold with 5.53 g/t Au & 5.85 million tonnes of gold resources with 4.83 g/t Au was estimated.
-do-	Hira Buddinni	1:400	136.10	-	-	1164	Mineralisation occurs along with sheared contact of acidic & basic volcanic rocks which is manifested by chloritised brecciated rocks with quartz carbonate veins, veinlets with sulphides. Mineralisation was found over a strike length of 600 m. About 0.78 million tonnes of gold resources were estimated with 3.99 g/t Au.
-do-	Uti	1:400	-	-	-	1004	The mineralisation zone was characterised by significant sulphidation and biotisation. A total of about 2.18 million tonnes of gold resources were estimated. Out of which 0.31 million tonnes, 1.73 million tonnes and 0.14 million tonnes with 2.50 g/t Au, 2.64 g/t Au, and 2.91 g/t Au, respectively.

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Production

The value of mineral production in Karnataka at ₹ 4,467 crore in 2011-12 decreased by about 52% as compared to the previous year. It was mainly due to decrease in the production of iron ore by 66% (owing to suspension of mining activities by court order) and manganese ore by 67% as compared to the previous year. Iron ore, gold, limestone and manganese ore being the important minerals produced in the State together accounted for 85% of the total value of mineral production during the year. Karnataka was the sole producer of felsite and the leading producer of gold with a share of 99%; second largest producer of limeshell (29%), shale (24%) and dunite (10%) and it was third largest producer of magnesite (4%) in the country.

Among the minerals, production of dunite increased by 95% and that of shale by 45%, dolomite by 24%, laterite by 15% and limestone by 9% during 2011-12. Whereas the production of gold and quartzite decreased by 9% each, limeshell 16%, magnesite 30% and felsite 39% as compare to that of the previous year (Table- 3).

The production value of minor minerals was estimated at ₹ 646 crore for the year 2011-12.

The number of reporting mines in Karnataka was 185 in 2011-12 as against 251 in the previous year.

The index of mineral production in Karnataka (base 2004-05=100) was 43.00 in 2011-12 as compared to 101.69 in the previous year.

**Table – 3 : Mineral Production in Karnataka, 2009-10 to 2011-12
(Excluding Atomic Minerals)**

Mineral	Unit	2009-10			2010-11			2011-12 (P)		
		No. of mines	Qty	Value	No. of mines	Qty	Value	No. of mines	Qty	Value
All Minerals		233		60708085	251		92997859	185		44674235
Bauxite	t	2	123316	32748	2	64643	11348	1	83019	20157
Chromite	t	3	6483	30856	3	8540	33223	2	9827	40336
Gold Ore	t	-	512454	-	-	736904	-	-	484438	-
Gold	kg	3	2070	3404563	3	2385	4317060	3	2181	5467505
Iron Ore	'000t	93	43163	48811665	98	38983	79098120	55	13189	29821352
Manganese Ore	t	19	301163	611165	21	413287	929734	19	136072	297422
Silver*	kg	-	230	5770	-	221	8627	-	200	11374
Dolomite	t	15	385041	55044	17	442941	71522	17	548694	90517
Dunite	t	1	37346	8830	1	1971	360	1	3846	513
Felspar	t	1	3100	651	2	1034	285	2	-	-
Fireclay	t	-	5523	2949	2	15330	4431	1	7684	2256
Felsite	t	6	3049	2464	6	1670	2420	3	1018	1854
Kaolin	t	3	19543	12015	3	9785	8796	1	3214	7697
Laterite	t	3	203378	69711	3	130300	17119	1	149600	21111
Limestone	'000t	56	17959	1718707	66	18595	1933439	66	20228	2340902
Limeshell	t	4	39880	25406	3	11578	8865	2	9689	7543
Magnesite	t	2	6437	13591	3	11820	26839	3	8331	24120
Ochre	t	-	4156	4862	1	34157	29063	-	1126	5067
Quartz	t	-	275	108	-	10	3	1	-	-
Quartzite	t	2	7437	2054	1	11450	3607	1	10434	2902
Silica Sand	t	20	109468	15206	16	43988	6384	6	33937	8469
Shale	t	-	936636	34304	-	559356	25710	-	809926	42234
Minor Minerals@		-	-	5845416	-	-	6460904	-	-	6460904

Note: The number of mines excludes minor minerals.

** Recovered at Raichur and Tumkur during refining of gold.*

@ Figures for earlier years have been repeated as estimates because of non-receipt of data.

STATE REVIEWS

Mineral-based Industry

The important large and medium-scale mineral-based industries in organised sector in the State are given in Table - 4.

Table - 4 : Principal Mineral-based Industries in Karnataka

Industry/plant	Capacity ('000 tpy)
Abrasives	
Grindwell Norton Ltd, Bengaluru.	NA
Sri Sadguru Abrasives Pvt. Ltd, Mache, Dist. Belgaum.	24 (t)
Alumina	
Hindalco Industries Ltd, Belgaum.	350 (alumina) 138 (spl. alumina)
Asbestos Products	
Ramco Industries Ltd, Karur, Dharwad.	NA
Southern Asbestos Ltd, Karur, Dist. Dharwad.	NA
Cement	
ACC Ltd, Wadi, Dist. Gulbarga.	5950
Bagalkot Cement Industries Ltd, Bagalkot.	297
CCI Ltd, Kurkunta, Dist. Gulbarga.	198
HMP Cements Ltd, Shahabad, Dist. Gulbarga.	476
Kanoria Industries, Bagalkot.	330
Heidenberg Cement India Ltd, (Formerly Mysore Cements Ltd) Ammasandra, Dist. Tumkur.	570
Raj Shree Cement, Malkhed, Dist. Gulbarga.	3242
Siddaganga Cement Pvt Ltd, Sadarahalli, Dist. Tumkur.	9

(Contd.)

Table - 4 (Contd.)

Industry/plant	Capacity ('000 tpy)
Vasvadatta Cement, Sedam, Dist. Gulbarga.	8565
Zawar Cement (P) Ltd, Shahabad, Dist. Gulbarga.	495
Ceramic	
Ceramic Products Ltd, Khanapur, Dist. Belgaum.	5
H&R Johnson (India) Ltd, Hubli.	47.72
Murudeshwar Ceramics Ltd, Dharwad.	115
The Mysore Spongware Pipes Potteries Ltd, Solandavanahalli, Bengaluru.	6
Chemical	
Solaris Chem Tech Industries Ltd, Bhingra, Dist. Uttara Kannada.	59.4 (caustic soda) 52.3 (Cl) 133.7 (HCl) 24.0 (H ₃ PO ₄)
Fertilizer	
Mangalore Chemical & Fertilizers Ltd, Panambur, Dist. Dakshina Kannada.	380 (urea) 260 (DAP)
Iron & Steel	
JSW Steel Ltd, Vijayanagar, Dist. Bellary.	4200 (pellets) 720 (pig iron) 2000 (steel) 6800(crude/liquid steel)
Visvesvaraya Iron & Steel Ltd, Bhadravati, Dist. Shimoga.	205 (pig iron) 144 (saleable steel) 118(crude/liquid steel) 4.8 (refractory bricks)
Sunvik Steels Pvt. Ltd, Jodidevarahally, Dist. Tumkur.	60 (sponge iron) 60 (TMT bar).
Pellets	
KIOCL, Mangalore.	4000 (pellets) 6700 (conc.) 228 (pig iron)

(Contd.)

STATE REVIEWS

Table - 4 (Contd.)

Industry/plant	Capacity ('000 tpy)
Pig Iron	
Uni-Metal Ispat Ltd, Bellary.	75
Kalyani Ferrous Ind. Ltd, Koppal.	120
Kirloskar Ferrous Industries Ltd, Bevinahalli, Dist. Koppal.	240
KIOCL Ltd, Mangalore.	227
Sponge Iron	
Agrawal Sponge & Energy (P) Ltd, Kuduthini, Dist. Bellary.	72
Balakundi Premium Steels Pvt. Ltd, Halakundi, Dist. Bellary.	34
Bellary Ispat (P) Ltd, Halakundi Dist. Bellary.	33
Bellary Steel & Alloys Ltd, Bellary.	60
Benaka Sponge Iron Pvt. Ltd, Belagal, Dist. Bellary.	60
Dhruvdesh Metasteel Pvt. Ltd, Hirebaganal, Dist. Koppal.	60
Divya Jyoti Steel Ltd, Taranagar, Dist. Bellary.	30
Embitee Iron & Steel Pvt. Ltd, Bellary.	60
Gayatri Metals Pvt Ltd, Belagal, Dist. Bellary.	30
Janki Corp. Ltd, Sidiginamola, Dist. Bellary.	180
Haryana Steel and Power, Shanthigrama, Dist. Hassan.	35
Hare Krishna Metallics Pvt Ltd, Hire Baganal, Dist. Koppal.	75

(Contd.)

Table - 4 (Concl.)

Industry/plant	Capacity ('000 tpy)
Hospet Ispat Pvt. Ltd, Allaganar Bagnal Road, Dist. Koppal.	60
Hothur Ispat Pvt. Ltd, Veniveerapur, Dist. Bellary.	60
KMMI Steel Pvt. Ltd, Yerabanahally, Dist. Bellary.	120
Mastek Steels Pvt. Ltd, Halakundi, Dist. Bellary.	105
Noble Distilleries & Powers Ltd, Sirivar, Dist. Bellary.	72
PGM Ferro Steel Pvt. Ltd, Hariganadani, Dist. Bellary.	60
Popuri Steels Ltd, Halakundi, Dist. Bellary.	30
Rayon Steel Pvt Ltd, Veniverapur, Dist. Bellary.	60
Rengineni Steel Pvt. Ltd, Halakundi, Dist. Bellary.	25
Shree Venkateshwara Sponge & Power Ltd, Halakundi, Dist. Bellary.	30
Yashshvi Steel & Alloys Ltd, Halakundi, Dist. Bellary.	30
Ferro Alloys	
Dandeli Steel & Ferro Alloys Ltd, Dandeli.	6
Yashashvi Steels & Alloys Pvt Ltd, Nalakundi, Dist. Bellary.	30
S.R. Chemicals & Ferro Alloys Ltd, Honaga, Dist. Belgaum.	0.3
Thermit Alloys Pvt. Ltd, Shimoga.	1.2
Petroleum Refinery	
MRPL, Mangalore.	11820